

Appendix C

List of Document Deliverables

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List of Document Deliverables

Draft for Preliminary Project Execution Plan

Project Documents	Implementation	WBS	Due Date (mo/yr)
RD Work Plan			
Conceptual design (10%) for facilities	Conceptual Design Review (CDR) Package	2.2.5	Jan. 2002
Corresponding functional [...] requirements (F&ORs)	Technical and Functional Requirements (TFR)	2.1.1	Jan. 2002
Cost estimate for the RD phase	Conceptual cost estimate for CDR	9.14	Jan. 2002
Design review and approval requirements	Configuration Management (CM) Plan	9.4	Jan. 2002
DOE/Contractor Internal Documents supporting the RD Work Plan			
Project Execution Plan (PEP)	Project Execution Plan, Preliminary	9.4	Jan. 2002
	Acquisition Plan	9.1	Jan. 2002
Systems Engineering Management Plan	Included in PEP as Project Work Strategies/ Processes	9.4	Jan. 2002
Records Management Plan	Records Management Plan	9.8	Jan. 2002
Risk Management Plan	Risk Management Plan	9.5	Jan. 2002
Davis-Bacon Committee Case Record	Davis-Bacon Committee Case Record	9.7	Jan. 2002
Document Hierarchy and Deliverables	Document List	9.1	Jan. 2002
Remedial Design (RD) Package		2.3; 2.4	Oct. 2002
Design drawings	RD package drawings	2.3; 2.4	Oct. 2002
Process Flow Diagrams (PFDs)	PFDs and Process Flows	2.3.1.1; 2.3.1.2	Oct. 2002
-Volume, flow rate, and quantity estimates			
Select piping and instrumentation diagrams (P&IDs)	RD package drawings	2.3; 2.4	Oct. 2002

Project Documents	Implementation	WBS	Due Date (mo/yr)
General equipment arrangement drawings	RD package drawings	2.3	Oct. 2002
Specifications	RD package SPCs	2.3; 2.4	Oct. 2002
Major equipment identification	Safety Category List	1.8.1	Oct. 2002
Design criteria	System Design Criteria (SDC)	2.1.2; 2.5.1	Oct. 2002
ARARs, TBCs, and other permitting considerations	ARAR Implementation	1.1.1	Oct. 2002
Design alternatives	EDFs	2.3; 2.4	Oct. 2002
Identification of additional [unresolved] data needs	Draft Data Quality Objectives (DQOs)	2.3.1.7	Oct. 2002
Deliverables Supporting Remedial Design			
Sampling and Analysis Plan (SAP)	Draft Field Sampling Plan (FSP) ER QAPjP (see below) [SAP = FSP + QAPjP]	2.3.1.8; 1.1.1	Oct. 2002
Quality Assurance Project Plan (QAPjP)	ER QAPjP	1.8.1	Oct. 2002
Preliminary Safety Analysis Report {D.O.5480.23: 9(a)1}	Draft Preliminary Documented Safety Assessment (PDSA)	1.2.1	Oct. 2002
Preliminary Hazard Analysis {D.O.5480.23}	Chapter in PDSA	1.2.1	Oct. 2002
Air Emission Evaluation {D.O.5400.1}	Draft Air Emission Evaluation	1.1.1	Oct. 2002
Waste Management Plan {D.O.5400.1}	Preliminary Waste Management Plan	1.1.1	Oct. 2002
Waste Minimization Plan {D.O.5400.1}	ER Waste Minimization Plan	1.1.1	Oct. 2002
Design Cost Estimate	Design Cost Estimate	9.1.4	Oct. 2002
Quality Program Plan (QPP) {D.O.414.1}, {ID.O.414.1}, {10CFR830.120};	Quality Program Plan (Included as a section in PEP)	9.4	Oct. 2002

Project Documents	Implementation	WBS	Due Date (mo/yr)
DOE/Contractor Internal Documents supporting Remedial Design			
Lightning Risk Assessment {INL.AE Stds}	Lightning Risk Assessments	2.3.8.4	Oct. 2002
Nuclear Criticality Safety Evaluation {D.O.420.1}	Nuclear Criticality Safety Assessment	1.6.1; 1.6.2	Oct. 2002
SSC Engineering Control Forms (ECF) {INL.MCP-540}	SSC Engineering Control Forms (ECF)	2.3	Oct. 2002
Interface Agreements (IAGs)	AMWTF Interface Agreement	2.3.1.10	Oct. 2002
Natural Phenomena Hazards {D.O.420.1}	Draft Performance Category (PC) List	2.3; 2.4; 2.5	
Fire Hazard Analysis {D.O.420.1: 4.2.1.5}	Preliminary Fire Hazard Analysis	1.4.1	Oct. 2002
Unreviewed Safety Questions (USQ) for Construction and Operations {D.O.5480.21}		1.2.2; 1.2.4	Oct. 2002
Environmental Checklist	Environmental Checklist	1.1.1	Oct. 2002
Resolution of comments on the conceptual (10%) design	Comment resolution	2.2.6	Oct. 2002
Master Test and Evaluation Plan (MTEP)	Turnover and Acceptance Strategy/ Process (Included as section in PEP)	6.1	Oct. 2002
D&D/Closure Plan {D.O.5820.2A}	DD&D/Closure Implementation	5.1; 7.1	Oct. 2002
Energy Conservation Report {D.O.430.2}	Energy Conservation Report EDF	2.3.8.3.2	Oct. 2002
RWMC Interface Agreement	RWMC Interface Agreement	2.11	Oct. 2002
Evaluation Report {D.O.420.1} [DOE]	Evaluation Report [DOE]	DOE	TBD
Project Physical Security Plan	Project Physical Security Plan	1.7.2	Oct. 2002
ALARA Design Reviews	ALARA Design Reviews	1.5.1	Oct. 2002
RA Work Plan		6.1; 9.13	
Baseline cost estimate	Baseline cost estimate	9.1.4	Aug. 2002
ARARs and substantive permit requirements	ARARs Table	1.1.1	TBD
Emergency procedures	Refer to O&M Plan	7.1	TBD

Project Documents	Implementation	WBS	Due Date (mo/yr)
Waste management plans	Refer to draft-final Waste Mgt. Plan	1.1.1	TBD
RD/RA elements of the Community Relations Plan	ESD	1.1.1	TBD
Deliverables supporting the RA Work Plan			
Waste Management Plan {D.O.5400.1}	Final Waste Management Plan	1.1.1	TBD
Waste Minimization Plan {D.O.5400.1}	Waste Minimization Plan	1.1.1	TBD
Air Emissions Evaluation {D.O.5400.1}	Air Emissions Evaluation (Draft Final)	1.1.1	TBD
Decontamination and decommissioning plan, where applicable.	Updated DD&D/Closure Implementation	5.1; 7.1	TBD
Emergency Procedures	See O&M Plan submittals	7.1	TBD
Environmental Monitoring Plan	Emissions Monitoring Plans: - Rad Plan and QAPjP, - Non-Rad Plan and QAPjP	1.1.1	TBD
DOE/Contractor Internal Documents supporting the RA Work Plan			
Process Flow Model {PM}	Process Flow Model EDF	2.3.1.12	TBD
O&M Plan	Phased delivery of O&M / Maintenance Implementation Plans	7.1	TBD
Deliverables supporting the O&M Plan			
Health and Safety Plan	Site Health and Safety Plan [identify site-specific plans as needed]	7.1	TBD
Initial procedures	Initial plans and procedures, as identified in O&M Plan	6.1; 7.1; 8.1	TBD
Vendor Design Data	Vendor Design Data	2.10; 3.0; 4.5.3	TBD

Project Documents	Implementation	WBS	Due Date (mo/yr)
Updated procedures incorporating the results of pre-startup activities	Updated procedures incorporating the results of pre-startup activities	7.2	TBD
Completed procedures incorporating operations results	Completed procedures incorporating operations results	7.2	TBD
DOE/Contractor Internal Documents supporting the O&M Plan			
Master Test and Evaluation Plan (MTEP) (Draft Final)	Master Test and Evaluation Plan (MTEP) (Draft Final)	6.1	TBD
System Level Integration Test Plan	Draft System Level Integration Test Plan	6.1	TBD
Operations Requirements Document (ORD)	Operations Requirements Document (ORD)	7.1	TBD
Operations Flow Charts	Operations Flow Charts	7.1	TBD
Storm Water Management {D.O.5400.1}	Storm Water Pollution Prevention Plans	2.3.6.1	TBD
Project-specific Waste Acceptance Criteria (WAC) {D.O.5820.2A}, {D.O.435.1}	Project-specific WAC	1.1.6; 7.1	TBD
Construction Health and Safety Plans {29CFR1910.120}, {29CFR1926.65}	Includes Fall Protection Plan, Steel Erection Plan	1.3.1	
Operating Health and Safety Plans {29CFR1910.120}, {29CFR1926.65}	Operations HASPs, including Personnel Monitoring Program	1.3.6	TBD
Master Equipment List (MEL) {D.O.4330.4B}	Master Equipment List (MEL)	8.1	TBD
Process Hazard Analysis {29CFR1910.120}	Job Safety Analysis	7.1; 8.1	TBD
Construction Documents {TPA.11/10/99}	Construction Documents	4.5	TBD

Project Documents	Implementation	WBS	Due Date (mo/yr)
Pre-Final Inspection Checklist		6.0	TBD
This document will identify regulatory-type issues, specific project systems, startup procedures, and facility components that the agencies will want to verify have been addressed and are functional prior to the facility operation.	Initial Pre-Final Inspection Checklist (Appendix to O&M Plan)	6.1	TBD
Updated Pre-Final Inspection Checklist	Updated Pre-Final Inspection Checklist, delivered before FFA/CO pre-final inspection, prior to DOE ORR	6.2	TBD
100% Design Package		2.3; 2.4	TBD
Comment resolutions on Draft RD	Comment resolution report Updated deliverables incorporating comment resolutions.	2.3; 2.4	
Reproducible construction drawings and specifications ready for bid advertisement	Approved For Construction (AFC) drawings and specifications	2.3	TBD
	Site Preparation Package	2.3.6	TBD
	Structural Construction Package	2.3.7	TBD
	Facility Completion Package	2.3.8	TBD
DOE/Contractor Internal Documents supporting the 100% Design			
Prior to Construction Documents	Request for Proposals	3.0	TBD
	Special Conditions	4.6.2	TBD
	Component Cost Estimates	9.14	TBD

Project Documents	Implementation	WBS	Due Date (mo/yr)
Pre-Final Inspection and ORR Report	Per report precedes DOE ORR and Authorization to Operate.	7.0	TBD
Prepared following completion of Pre-Final Inspection, this report will identify completion of all items detailed in the Pre-Final Inspection Checklist, completion status, date of final inspection, and, as appropriate, the proposed resolution and schedule for completion of any open items.	Pre-Final Inspection (Agency)	7.2	TBD
Along with the Pre-Final Inspection Report, an information copy of the ORR Report and DOE's Authorization to Operate will be provided as additional confirmation of the facility's operational status. [ORR Report also required by {D.O.425.1A}]	ORR Report [Contractor] ORR Reports [DOE] DOE Authorization to Operate	7.5	TBD
RA Report			
The RA Report will identify any outstanding items from the Pre-Final Inspection Report, results of shakedown phase, and results of final inspection, and summarize the work to be performed. It also provides an explanation of any modification to the Work Plan. Finally, it certifies that the action is operational and functional.	RA Report	6.1	TBD
Deliverables supporting the RA Report			
Updated D&D Plan {D.O.5820.2A}	Final DD&D Plan	5.1; 7.2	TBD
O&M Report			

Project Documents	Implementation	WBS	Due Date (mo/yr)
The O&M Report will provide an overall summary of the O&M activities performed, data collected, and an evaluation of project performance.	O&M Report	7.1; 7.2; 8.1; 8.2	TBD
DOE/Contractor Internal Documents supporting the O&M Report			
Final Analytical Report	Sampling and Analysis Report	7.0	TBD
Deliverables supporting Pre -Final Inspection and ORR			
Final Safety Assessment (FSA) {D.O.5480.23: 9(a)(2)};	Final Documented Safety Assessment (FDSEA)	1.2.4	TBD
Technical Safety Requirements {D.O.5480.22}	Technical Safety Requirements [in FSA]	1.2.4	TBD
DOE/Contractor Internal Documents supporting Pre -Final Inspection and ORR			
Fire Hazard Analysis {D.O.420.1: 4.2.1.5}	Final Fire Hazard Analysis (FHA)	1.4.1	TBD
Emergency Preparedness Hazards Assessment {D.O.151.1; D.O.232.1: 3.a.1-a,b,c, 3.a.2}	Emergency Preparedness Hazards Assessment & Updated Emergency Preparedness Hazards Assessment	1.7.1	TBD
DOE Safety Evaluation Report {D.O.420.1A} [prepared by DOE]	DOE Safety Evaluation Report	DOE	TBD
Addendum to RWMC Emergency/Contingency Plan	Addendum to RWMC Emergency/Contingency Plan	1.7.1	TBD
Final Project Transfer {D.O.425.1A}	Final Project Transfer	4.5.4	TBD
Draft Final Inspection Report {D.O.425.1A}	Draft Final Inspection Report	7.1	TBD
Draft Approved Startup Notification {D.O.425.1A}	Draft Approved Startup Notification	7.1	TBD
Plan of Action { D.O.425.1A } [DOE Document]	Plan of Action	DOE	TBD

Project Documents	Implementation	WBS	Due Date (mo/yr)
Plan of Action { D.O.425.1A } [Contractor Document]	Plan of Action	7.1	TBD
ORR Implementation Plan {D.O.425.1A} [DOE Document]	ORR Implementation Plan	DOE	TBD
ORR Implementation Plan {D.O.425.1A} [Contractor Document]	ORR Implementation Plan	7.1	TBD
Contractor Pre-Start Findings Closure Report {D.O.425.1A}	Contractor Pre-Start Findings Closure Report	7.1	TBD
Contractor Readiness to Proceed Document {D.O.425.1A}	Contractor Readiness to Proceed Document	7.1	TBD
DOE Endorsement and Readiness to Operate Document {D.O.425.1A}	DOE Endorsement and Readiness to Operate Document	7.1	TBD
DOE Pre-Start Findings Closure Report {D.O.425.1A}	DOE Pre-Start Findings Closure Report	7.1	TBD
DOE Authorization to Operate {D.O.425.1A}	DOE Authorization to Operate	7.1	TBD



Appendix D

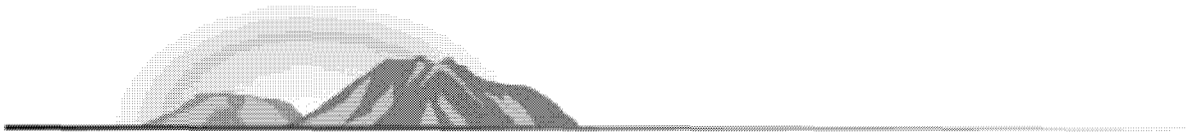
Preliminary Project Baseline Cost Range

Appendix D

The project preliminary baseline cost range is presented at the second level of the WBS in the table below. The estimate is based on assumptions presented in Appendix A.

Table D-1. Preliminary Baseline Cost Estimate Range.

WBS	Title	Cost with Contingency at 85% Confidence	Cost with Contingency at 65% Confidence
1.0	ESH&Q	\$6.6M	\$6.3M
2.0	Design	\$7.5M	\$7.3M
3.0	Procurement	\$9.8M	\$9.2M
4.0	Construction	\$5.6M	\$5.4M
5.0	D&D	\$5.7M	\$5.0M
6.0	Startup and Testing	\$4.6M	\$4.3M
7.0	Operations	\$27.6M	\$25.7M
8.0	Maintenance	\$3.9M	\$3.8M
9.0	Project Admin	\$9.4M	\$9.3M
NA	BBWI PF and G&A	\$1.2M	\$1.2M
Total		\$81.9M	\$77.5M



Appendix E

Project Funding Profiles

Preliminary project funding profiles are as follows:

Year	Amount
FY 2002	\$22.1M
FY 2003	\$24.6M
FY 2004	\$27.5M
FY 2005	\$ 3.3M
TOTAL	\$77.5M



Appendix F

Project Risk Response Summary

Table F-1. Risk response summary for the project.

Risk Tracking Number ^a	Risk ^b	Risk Factor	Risk Handling Strategy	Residual Risk Level	Residual Risk Factor
S/R1	Excavator operation causes fire and personnel exposure	0.1	Mitigate risk	Low	<0.03
S/R8	Performance category issue: additional cost and time	0.16	Reduce risk	Low	<0.08
P1	Fuel spill and fire causes breach of confinement	0.16	Mitigate risk	Low	<0.03
P4	Work approval delay causes additional time and rework	0.28	Reduce risk	Moderate	0.28
P5	Deadline surprises causes additional time and resources	0.32	Accept risk	N/A	N/A
P6	CD in Washington, D.C. (not Idaho) which requires additional	0.16	Reduce risk	Moderate	0.16
P8	Employee concern causes work delay and additional cost	0.3	Accept risk	N/A	N/A
P10	Record of decision objectives understanding causes scope creep	> 0.27	Reduce risk	Moderate	>0.18
P11	PSAR requirements are not implemented	>0.18	Reduce risk	Low	<0.07
P12	ORR problem causes work shutdown	0.18	Reduce risk	Moderate	0.12
P13	Excessive scrutiny causes work delay and additional cost	0.32	Reduce risk	Moderate	0.28
P14	Requirements creep causes schedule delay and additional cost	0.25	Mitigate Risk	Moderate	0.16
P15	Advantage: overstatement of costs allowing funds for other uses	0.15	Accept Risk	N/A	N/A
O1	Unforeseen issues or pit contents cause work delay and additional cost	0.12	Mitigate Risk	Low	0.06
O3	Commercial items not acceptable causing work delay	0.15	Reduce risk	Low	<0.05
O6	Assay trailer not available causing work delay	0.18	Reduce risk	Moderate	0.12
O8	Advantage: excavation goes quickly allowing funds for other uses	0.1	Accept	N/A	N/A
O16	Excavator operation causes breach and personnel exposure	0.42	Reduce risk	Low	<0.06

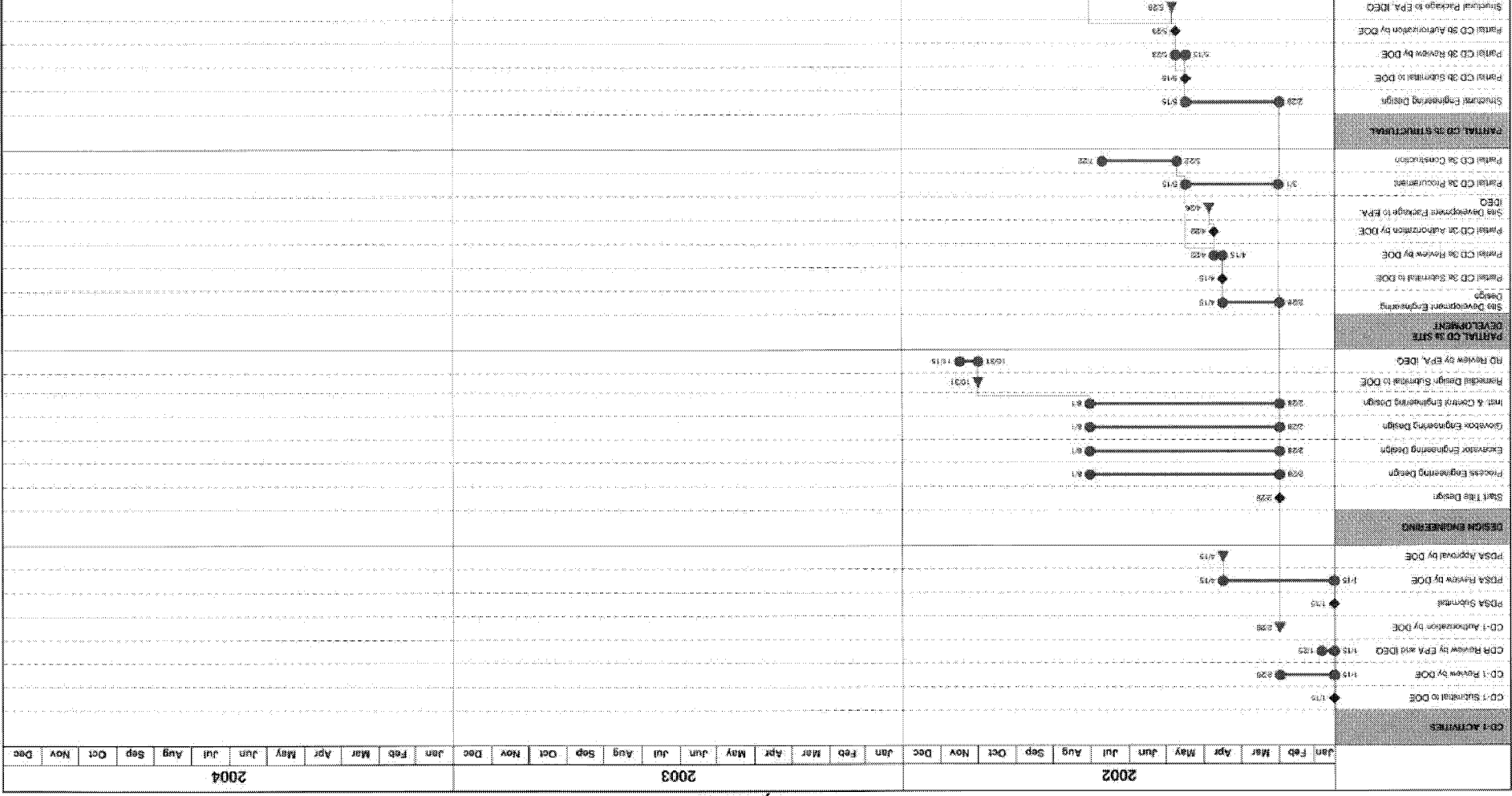
Risk Tracking Number ^a	Risk ^b	Risk Factor	Risk Handling Strategy	Residual Risk Level	Residual Risk Factor
R1	Key disciplines not available causing work delay and additional cost	0.28	Reduce risk	Low	<0.07
R2	Fissile monitor not available causing work delay	0.3	Reduce risk	Low	<0.06
D/C2	DOE safety review takes longer causing work delay for design	0.48	Reduce risk	Moderate	0.16
D/C3	Overlapping (concurrent) efforts causing additional cost and time	0.1	Reduce and mitigate Risk	Low	<0.02
D/C11	Production rates are not met causing schedule commitments to be missed	0.21	Reduce and mitigate Risk	Low	<0.03
P/C1	Few contractors for the Site causing additional cost	0.12	Reduce risk	Low	<0.03
E/R2	Mercury and VOC monitoring required causing additional cost	0.12	Reduce risk	Low	0.06
E/R3	Orphan waste found causing schedule delay for disposal approval	0.27	Mitigate Risk	Moderate	0.15
<p>1. Categories:</p> <p>S/R = safety and radiological health P = programmatic O = operations R = response D/C = design and construction P/C = procurement and contract E/R = environment and regulatory</p> <p>2. Please see the risk analysis worksheets (Appendix B of PLN-1024, 2001, "Risk Management Plan for the OU 7-10 Glovebox Excavator Method (GEM) Project," (Draft), Rev. A, Environmental Restoration, December 2001.) for complete details and proper context.</p> <p>Key:</p> <p>CD – critical decision DOE – U.S. Department of Energy EEF – environmental enclosure facility ORR – operational readiness review PSAR – preliminary safety analysis report RAE - retrieval area enclosure ROD – record of decision VOC – volatile organic compound</p>					



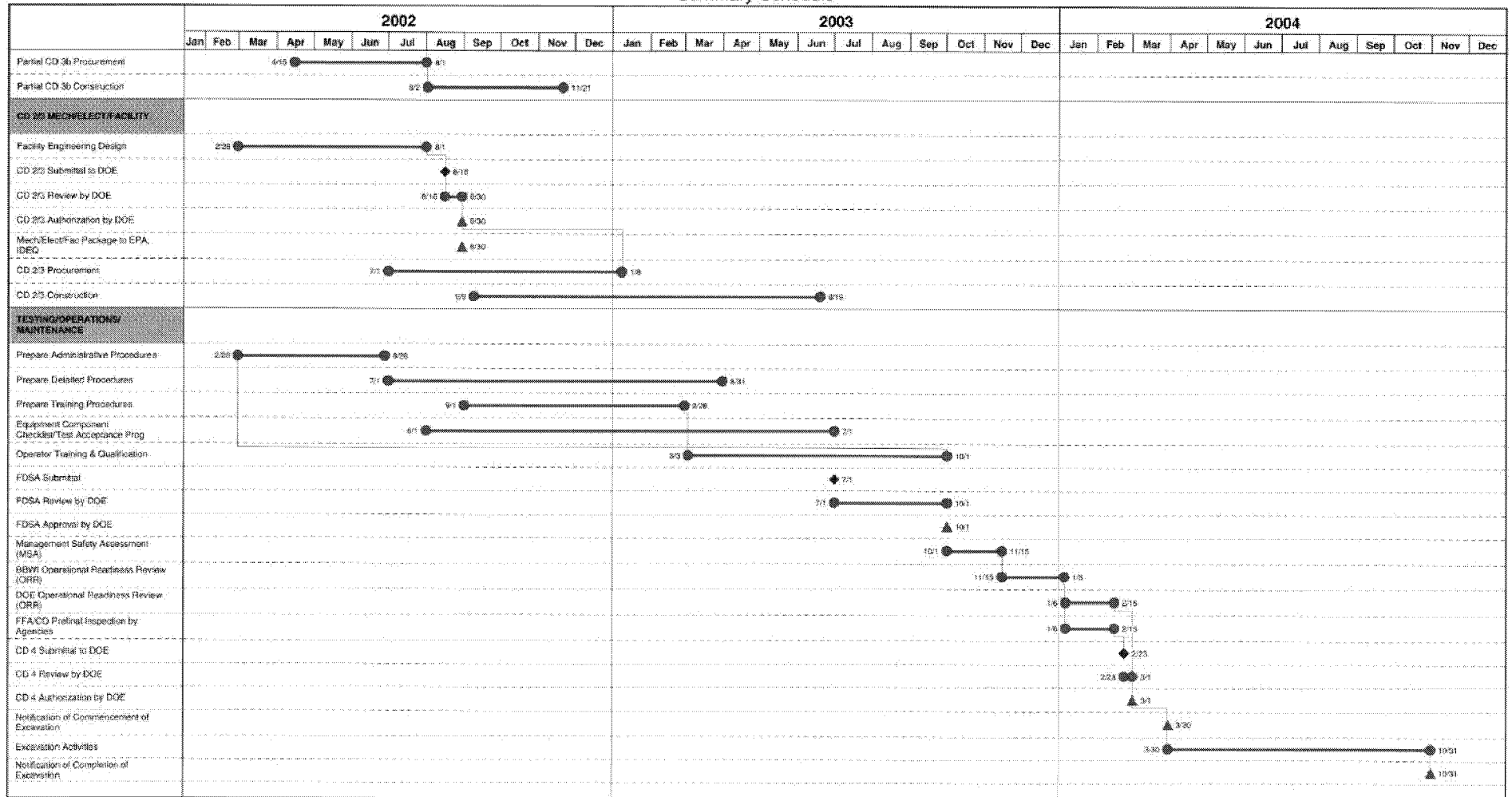
Appendix G

Schedule

OU 7-10 Glovebox Excavator Method Project Summary Schedule



OU 7-10 Glovebox Excavator Method Project Summary Schedule





Idaho National Engineering and Environmental Laboratory